

SAFETY DATA SHEET

Delta D404 Cyanocrylate Activator

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name Delta D404 Cyanocrylate Activator
Product No. D404

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Activator For Cyanoacrylate Adhesives

1.3. Details of the supplier of the safety data sheet

Supplier Delta Adhesives Ltd
Units 39-41 Claycliffe Business Park
Cannon Way, Barugh Green
Barnsley, South Yorkshire
S75 1JU
Tel: 01226 381 571
Fax: 01226 381722
www.delta-adhesives.co.uk

1.4. Emergency telephone number

National Emergency Telephone Number
Delta Adhesives Ltd +44 (0) 1226 381 571 (Mon-Fri 09:00 - 17:00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Aerosol 1 - H222
Human health	Skin Irrit. 2 - H315; STOT SE 3 - H336
Environment	Aquatic Chronic 2 - H411

Classification (1999/45/EEC) Xi;R38. F+;R12. N;R51/53. R67.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea.

Environment

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Physical and Chemical Hazards

Pressurised container: Must not be exposed to temperatures above 50C. The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word Danger

Hazard Statements

H222

Extremely flammable aerosol.

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<p>H315 H336 H411</p> <p>Precautionary Statements</p> <p>P210 P211 P251 P261 P271 P273 P410+412 P501</p> <p>Supplementary Precautionary Statements</p> <p>P302+352 P304+340</p>	<p>Causes skin irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.</p> <p>Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing vapour/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. Dispose of contents/container in accordance with national regulations.</p> <p>IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p>
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2.3. Other hazards

H229 Pressurised container: May burst if heated.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Low boiling Point Hydrogen Treated Naphtha- Naphtha (Petroleum) Hydrotreated Light 30-60%		
CAS-No.: 64742-49-0 EC No.: 265-151-9 Registration Number: 01-2119475133-43		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411 </td> <td style="width: 50%;"> Classification (67/548/EEC) Xn;R65. Xi;R38. F;R11. N;R51/53. R67. </td> </tr> </table>	Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. Xi;R38. F;R11. N;R51/53. R67.
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. Xi;R38. F;R11. N;R51/53. R67.	
PROPANE 10-30%		
CAS-No.: 74-98-6 EC No.: 200-827-9 Registration Number: 01-2119486944-21		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Flam. Gas 1 - H220 </td> <td style="width: 50%;"> Classification (67/548/EEC) F+;R12 </td> </tr> </table>	Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12	
BUTANE/ISOBUTANE 10-30%		
CAS-No.: 106-97-8 EC No.: 203-448-7 Registration Number: 01-2119474691-32		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Classification (EC 1272/2008) Flam. Gas 1 - H220 </td> <td style="width: 50%;"> Classification (67/548/EEC) F+;R12. </td> </tr> </table>	Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12.
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HEXANE-norm		1-5%
CAS-No.: 110-54-3	EC No.: 203-777-6	Registration Number: 01-2119480412-44-0000
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361f STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67 N;R51/53	
N,N-DIMETHYL-P-TOLUIDINE		< 1%
CAS-No.: 99-97-8	EC No.: 202-805-4	Registration Number: 01-2119937766-23
Classification (EC 1272/2008) Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 STOT RE 2 - H373	Classification (67/548/EEC) T;R23/24/25. R33.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Move the exposed person to fresh air at once.

Inhalation

Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

Immediately rinse mouth and provide fresh air. DO NOT induce vomiting if swallowed chemical is dissolved in petroleum-based material. Danger of aspiration and development of chemical pneumonia. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Immediately rinse with water. Continue to rinse for at least 15 minutes. Make sure to remove any contact lenses from the eyes before rinsing. Get medical attention promptly if symptoms occur after washing.

4.2. Most important symptoms and effects, both acute and delayed

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion

Fumes from the stomach contents may be inhaled resulting in the same symptoms as inhalation. May cause nausea, headache, dizziness and intoxication.

Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

Prolonged contact may cause redness and/or tearing.

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4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

Extremely flammable. Forms explosive mixtures with air. May explode in a fire. Vapours are heavier than air and may spread near ground to sources of ignition.

Specific hazards

Aerosol containers can explode when heated, due to excessive pressure build-up.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water. Cool containers exposed to flames with water until well after the fire is out.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. For personal protection, see section 8.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. Provide ventilation and confine spill. Do not allow runoff to sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. Read and follow manufacturer's recommendations. Avoid inhalation of vapours and spray mists. Do not eat, drink or smoke when using the product. Provide good ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Store at moderate temperatures in dry, well ventilated area.

Forms flammable vapours heavier than air vapour. Provide ventilation.

Storage Class

Extremely Flammable Aerosol

7.3. Specific end use(s)

Activator For Cyanoacrylate Adhesives

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Usage Description

Apply spray to substrate requiring activation and allow solvent to evaporate. Bring the activated substrate into contact with another substrate coated with the cyanoacrylate adhesive. A rapid bond should be formed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
BUTANE/ISOBUTANE	WEL	600 ppm		750 ppm		
HEXANE-norm	WEL	20 ppm	72 mg/m ³			
Low boiling Point Hydrogen Treated Naphtha-Naphtha (Petroleum) Hydrotreated Light			1000 mg/m ³		1000 mg/m ³	
PROPANE	WEL	1000 ppm	1800 mg/m ³			

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Process conditions

Ensure suitable ventilation of area.

Engineering measures

Provide adequate ventilation.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

Hand protection

Protective gloves should be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable.

Other Protection

Provide eyewash station.

Hygiene measures

Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

Personal protection

Wear protective work clothing.

Skin protection

Wear suitable gloves if prolonged or repeated skin contact is likely

Environmental Exposure Controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol container containing a mixture of active ingredients, solvents and propellants
Colour	Colourless. Light (or pale).
Odour	Hydrocarbon.
Solubility	Insoluble in water

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Comments

A flash point method is not available for aerosols but the major hazardous component, the Propellant has flash point of <-40 C with flammability limits of 9.5% vol. upper and 1.8% vol. lower. Auto ignition temperature is 410/580 C.

9.2. Other information

Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Exothermic reaction with: Cyanoacrylates

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Will react exothermically with cyanoacrylates. No known hazardous reactions if stored under normal conditions.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid

Small quantities of this activator can cause large quantities of cyanoacrylate materials to polymerise extremely exothermically.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation

High exposures may cause an abnormal heart rhythm and prove suddenly fatal. Very high atmospheric concentrations may cause anaesthetic effects and asphyxiation.

Ingestion

May cause soreness and redness of mouth and throat.

Skin contact

Irritating to skin. Prolonged and frequent contact may cause redness and irritation.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

Health Warnings

Concentrating and inhaling the gas/spray can lead to abnormal heart rhythms and possibly death.

Route of entry

Inhalation.

Target Organs

Respiratory system, lungs Central nervous system

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Medical Symptoms

Narcotic effect. Drowsiness. Dizziness.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment. Do not allow to enter drains, sewers or watercourses.

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Biodegradable in part only.

Degradability

The degradability of the product has not been stated.

12.3. Bioaccumulative potential

Bioaccumulative potential

Readily evaporates from water/soil due to high volatility.

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. The product is immiscible with water and will spread on the water surface.

12.5. Results of PBT and vPvB assessment

Not determined

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Ensure containers are empty before discarding (explosion risk). Do not puncture or incinerate even when empty. Dispose of waste and residues in accordance with local authority requirements.

13.1. Waste treatment methods

Make sure containers are empty before discarding (explosion risk). Ensure container is empty and dispose of in accordance with Local Authority regulations. Do not pierce or incinerate even when container is empty.

Waste Class

Full or Partially Empty Aerosol: 16 05 04, Empty Aerosol: 15 01 10 (Containing hazardous residues). Empty Aerosol: 15 01 04 (No hazardous residues).

SECTION 14: TRANSPORT INFORMATION

General

This product is packed in accordance with the Limited quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow the transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing they are labelled in accordance with the requirements of those regulations to show that they are transported as Limited Quantities. Aerosols not so packed must show the following.

14.1. UN number

UN No. (ADR/RID/ADN) 1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

14.3. Transport hazard class(es)

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ADR/RID/ADN Class	2, 5F
ADR/RID/ADN Class	Class 2.1: Flammable gases.
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	



14.4. Packing group

Not applicable.

ADR/RID/ADN Packing group	#
IMDG Packing group	#
ICAO Packing group	#

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

EMS	F-D, S-U
Tunnel Restriction Code	(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations.

Statutory Instruments

Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

ECHA: Guidance on the Compilation of safety data sheets. (V1.1, December 2011)

EU Legislation

Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). The Aerosol Dispensers Regulations 2009 (SI 2824) The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 ("CDG 2009"), SI 2009 No 1348 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 (CDG 2007). Control of Substances Hazardous to Health Regulations 2002 (as amended) The Aerosol Dispensers (EEC Requirements)(Amendment) Regulations 1996 (S.I 1996 No. 2421). Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By	Technical Service Manager
Revision Date	23 September 2014
Revision	4
Supersedes date	27 June 2014
SDS No.	10808
Date	23 September 2014
Risk Phrases In Full	
R33	Danger of cumulative effects.
R12	Extremely flammable.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R38	Irritating to skin.
R62	Possible risk of impaired fertility.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.
Hazard Statements In Full	
H315	Causes skin irritation.
H222	Extremely flammable aerosol.
H220	Extremely flammable gas.
H330	Fatal if inhaled.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in a process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.